

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FUMIHIKO SUDO

Appeal No. 2002-1427
Application No. 08/667,459¹

HEARD: MARCH 5, 2003

Before FLEMING, LEVY, and SAADAT, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1, 2, 6 and 8. Claims 4 and 7 have been cancelled and claims 3 and 5 have been indicated as allowable by the Examiner.²

We reverse.

¹ Application for patent filed June 21, 1996, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of the Japanese Application No. 07-157817, filed June 23, 1995.

² The rejection of claims 3 and 5, as indicated in the final Office action (Paper no. 12, mailed July 7, 1999), was withdrawn in the answer (page 2).

BACKGROUND

Appellant's invention relates to a video camera system capable of reducing color differences between a plurality of cameras by adjusting their gains and DC offset values (specification, page 1). According to Appellant, color matching in conventional video camera systems cannot be achieved because their gains and DC offset values of the cameras are fixed (specification, page 4). Appellant presents a solution for the above-mentioned problem by determining the color matching coefficients of the cameras such that their red, green and blue signals are adjusted to match those of a reference video camera (specification, page 9).

Representative independent claim 1 is reproduced as follows:

1. A video camera comprising:

level detecting means for detecting the levels of red, green and blue signals obtained through imaging operation; and

color matching means for adjusting the gains and/or the DC current offset values of said red, green and blue signals according to one or more coefficients such that the component color characteristics of the camera substantially match the component color characteristics of a reference camera, said coefficients being computed based on the levels of said red, green and blue signals which are detected by said level detecting means and levels of red, green and blue signals detected in said reference camera.

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The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Griesshaber et al. (Griesshaber)	4,414,573	Nov. 8, 1983
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Parulski et al. (Parulski)	5,189,511	Feb. 23, 1993
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Claims 1, 2, 6 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Parulski and Griesshaber.

We make reference to the answer (Paper No. 17, mailed June 23, 2000) for the Examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 16, filed March 7, 2000) and the reply brief (Paper No. 18, filed August 28, 2000) for Appellant's arguments thereagainst.

OPINION

The Examiner relies on Parulski for teaching a level detecting means and a color matching means and indicates that the reference fails to disclose color matching to a reference camera (answer, page 4). The Examiner, however, reasons that Griesshaber's use of a plurality of cameras indicates that:

The teaching of the reference camera is the first camera to obtain the variety of modes, and the video camera is the same camera used at a different time in which the values are produced according to the reference values previously obtained.

(Id.).

The Examiner supports a conclusion of obviousness by further stating that the already stored coefficients are matched with the coefficients of the camera for processing color images without constantly obtaining red, green and blue values (answer, page 5).

Appellant argues that Parulski computes a modified value for each red, green and blue signals based on the values measured by the same camera and not on primary values from any other device (brief, page 6). Additionally, Appellant asserts that although a plurality of cameras is adjusted in Griesshaber, operating mode values are generated based on a comparison of each camera's generated image and that of an electronic test pattern generator, not based on comparing with the signal levels of a reference camera (brief, pages 7 and 8). Appellant further points out that "in other words, none of Griesshaber's cameras serves as a reference, but rather, the electronically generated test pattern serves as the reference" (brief, page 8).

In response, the Examiner argues that the single camera in Parulski is the reference camera for obtaining color matching values which are obtained prior to operation of the camera (answer, page 7). Furthermore, the Examiner makes the assumption that the single camera referred to in Parulski for detecting the

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image signals can also be the reference camera (id.). The Examiner specifically states that:

Therefore, the camera in Parulski is the prior art that actually teaches the reference camera is the first camera to obtain the preset values and the camera is also the same camera used at a different time in which the values are produced according to the reference values previously stored. [Emphasis added.] (Id.).

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under § 103, the examiner must produce a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Our reviewing court requires this evidence in order to establish a prima facie case. In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The Examiner must not only identify the elements in the prior art, but also show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

A review of Parulski confirms that the reference relates to improved reproduction of hard copy images captured by an electronic camera (col. 1, lines 18-24). Parulski further describes color image sensing and signal processing performed by a camera (col. 4, lines 14-35) by providing the captured image to a color processing unit (col. 4, lines 36-51) which converts the electronic image into appropriate signals for producing a color print (col. 4, lines 56-58). Therefore, Parulski merely adjusts the electronic color image captured by only one camera for producing image signals to be sent to a printer.

Griesshaber, on the other hand relates to pattern recognition for performing automatic or manual error measurements of a television camera during its setup mode (col. 3, lines 17-21). As depicted in Figure 2, Griesshaber uses an external or internal test pattern 151 which is viewed by a number of cameras 152 (col. 3, lines 50-55) and is compared with an electronic test pattern generated by test pattern generator 170 for error correction (col. 4, lines 4-10). Griesshaber, in fact, compares the images obtained by each camera with the electronic test pattern and not with the image signal generated by any one of the cameras.

Based on our findings above, we agree with Appellant's argument (reply brief, page 5) that even if Parulski's camera may

be calibrated according to its own parameters, it does not come close to inter-camera calibration of a multi camera system based on a reference camera, as required by Appellant's claim 1. In that regard, while Parulski indicates that color adjustment of the signal takes place and Griesshaber used a plurality of cameras, the references fail to teach or suggest adjusting and matching the component color characteristics of a camera according to coefficients computed based on color signals detected in a reference camera. In fact, Griesshaber teaches error measurement in each of a plurality of cameras by comparing the image of an optical test pattern with that of an electronically generated pattern. Therefore, by merely employing multiple cameras in Parulski, the combination of the applied prior art does not teach or suggest that any component color matching may be done between the cameras and a reference camera.

Thus, the Examiner has failed to establish a prima facie case of obviousness as the necessary teachings and suggestions to match the color characteristics of the image signal with that of a reference camera are not present in the applied prior art. Accordingly, we do not sustain the rejection of independent claims 1 and 6 as well as claims 2 and 8, which are dependent thereupon, under 35 U.S.C. § 103 over Parulski and Griesshaber.

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CONCLUSION

In view of the foregoing, the decision of the Examiner
rejecting claims 1, 2, 6 and 8 under 35 U.S.C. § 103 is reversed.

REVERSED

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
STUART S. LEVY)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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